## **Cumulative Index 1988**

## Volume 15

March TWIN PREGNANCY, pp 1–162

June INFECTIOUS COMPLICATIONS OF PREGNANCY, pp 163–419

September CARDIOVASCULAR DISEASE IN THE NEONATE, pp 421–726

December CURRENT CONTROVERSIES IN PERINATAL CARE, pp 727–1006

Note: Pages numbers of article titles are in boldface type.

Abortion, spontaneous, and enterovirus infections, 236

Acardia, and placental changes, 32 Actin, in heart maturation, 436-438

gene regulation, 438

and hormonal effects on cardiac growth, 437-438

isoform shifts, 436-437 during pressure overload, 437

Acyanosis, congenital heart disease with in-

creased pulmonary blood flow, 524-532

Afterload-reducing agents. See Inotropic and afterload-reducing agents.

Aldosterone, and body fluid homeostasis, 450, 452

Algorithm, anesthesia for twin births, 120 Alimentary system, maternal, in twin preg-

nancy, 44 Amiloride, 460–461

Amniocentesis, 62-63 Doppler ultrasound, 63

for fetal lung maturation, 63 genetic, 62-63

Amniotic fluid, human surfactant from, 892-893

Amrinone, 483

Analgesia, labor, 111-113

Anemia, antenatum complication, 83

Anesthesia, for open heart surgery, 663-665

for twin delivery, 107-122

algorithm, 120 analgesia for labor, 111-113

cesarean section, 116-120

labor and delivery, 110-111 pathophysiology, 109-110 physiology, 107-108

vaginal delivery, 113–116

Angiotensin converting enzyme inhibitors, 461

Antibiotic therapy of newborns, 365-388

administration route, 382 adverse effects, 386

bacterial infections, 367-368

blind therapy, 375-377

cephalosporins, third-generation, 380-381

diagnosis of infection, 368-372

dosage, 382 epidemiology, 366-367

evaluation, 380 incidence of infection, 365-366

monitoring of therapy, 384–385

new antibiotics, 381

pharmacology and pharmacokinetics, 372-

policy, 375

problem areas, 377-380

toxicity, 385-386 treatment duration, 382-384

Antibody fragments, digoxin-specific, 506-

administration and dosage, 508-510

indications, 508
Antigen detection systems, chlamydial infections, 341

Antioxidants, and retinopathy of prematurity, 923-924 Antiviral agents, and HIV infection in pregnancy, 195

Aorta, closed heart surgery, 690-691 coarctation of, 644-648

native, 644-646
recurrent and postoperative obstructions,
647-648

Aortic arch, interrupted, 671-672 Aortic valvular stenosis, 676, 692-696

Aplastic crisis, 277-278

Arrhythmias, cardiac, and sudden infant death syndrome, 699-712

bradycardia, 706-708

clinical presentation, 700-701 congenital complete A-V block, diagnosis

in utero therapy for, 708-711

etiology, 708 evaluation, 702

followup of nonpaced infants, 711

initial treatment, 703 mechanisms, 701-702

nonpharmacologic therapy, 706 supraventricular tachycardia, 704–706

tachycardias and cardiomyopathies, 702–703 ventricular tachycardia, 703–704

See also Ventricular rhythm with intermediate rate (VRIR).

Arthritis, and parvovirus B19, 278
Asphyxia, birth, in twin pregnancy, 128

ATPase, Ca, Mg-dependent, sarcoplasmic reticular, 440-442

Atrial natriuretic factor, 451, 453 Atrium, echocardiography of septal defect, 528-529

right-to-left shunt, 545-546

septectomy, 688–692 Atrioventricular block, congenital complete, 708–711

diagnosis, 708

in utero therapy, 708-711

Atrioventricular septal defects, echocardiography of, 532

Autonomic nervous system, and digitalis glycosides, 496–497

similarities and differences, 791-792 suggestions, 798-799

confidentiality, 799

education, 798 "grass roots" origins, 798 hospital leadership, 798

interdisciplinary composition, 798 meetings and recommendations, 798

membership terms, 799 parent participation, 799 public representation, 799

record keeping, 799
Bacterial infections, antibiotic therapy of newborn, 367–368

after implantation, 173-174 perinatal, 178-180

Listeria monocytogenes, 180

streptococci, group B, 178–180

Bed rest, in antepartum management, 60-61 and premature labor, 71-73

Beta-sympathomimetic agents, 74 Bilirubin-binding assays, 975–982

"Biological clock," and premature rupture of membranes, 857–859

Biopsy, endomyocardial, 651

Birth weights, relation to gestational age and intrauterine growth failure, 777 in teenage pregnancies, 933–935

in twin pregnancy, 126-127, 142-144

Blastomere separation, 16 Blood flow, pulmonary, echocardiography in congenital heart disease, 524–532, 540– 546

renal, during transition to extrauterine life, 866

Blood pressure measurement in neonates, 567-569

Blood-brain barrier, physiology of, 966-968 Body fluid homeostasis. See *Homeostasis of body fluids*.

Bradycardia, 706-708

Bronchopulmonary dysplasia, and fluid intake, 871-872

vitamin E therapy, 959 Bumetanide, 459

B19 virus. See Parvovirus B19, human.

Baby Doe committees, 789–800 assessment, 794–798

ethical decisions, 794–795 federal regulations and guidelines, 795– 796

legal problems, 796 public image, 796–798

assumptions and goals, 790–791 ethical question types, 792–794 origin, 789–790

Candidiasis, and HIV infection, 195

Carbohydrate metabolism, maternal, in twin pregnancy, 44, 83–84

Cardiomyopathies, dilated, digoxin effects, 503

See also Arrhythmias.

Cardiovascular disease in neonates, arrhythmias, cardiac, and sudden infant death syndrome, 699-712 clinical presentation, 700-701

evaluation, 702

mechanisms, 701-702 tachycardias and cardiomyopathies, 702-703

body fluid homeostasis with congestive heart failure, 447-466

closed heart surgery for congenital heart disease, 681-697

aortic valvular stenosis, 692-696 atrial septectomy, 688-692

coarctation of aorta, 690-691 palliative operations, 681-682 pulmonary artery banding, 684-688 systemic to pulmonary artery shunts,

682-684 digitalis, 491-521

digoxin-like immunoreactive substances. 510-518

glycosides, 491-506

intoxication and Fab antibody fragments, 506-510

echocardiography, two-dimensional and Doppler, 523-565

additional uses, 552-556

congenital heart disease, with acyanosis and increased pulmonary blood flow, 524-532

with cyanosis and decreased pulmonary vascularity, 540-546 with cyanosis and increased pulmo-

nary vascularity, 546-552 with ventricular outflow obstruction.

532-539 limitations, 556-557

prenatal diagnosis, 557-562

endocarditis, 587-608 complications, 602-603

diagnosis, 594-598

etiology, 592-594 incidence, 587-588

pathogenesis, 588-592 prognosis, 603

treatment, 598-601

heart maturation, 421-446 hypertensive neonates, 567-585

blood pressure measurement, 567-569 causes of, 570-573

clinical signs and symptoms, 573-575

epidemiology, 569-570 evaluation of, 575-577 management of, 577-579

prognosis, 579-580

inotropic and after oad-reducing agents, 467-489

cardiac physiology, 467-471developmental aspects, 471-472

inotropy, 473 vasoactive drug therapy, 473-479 vasodilators, 479-483

interventional cardiac procedures, 633-658

balloon atrial septostomy, 634-645 blade atrial septostomy, 635-637

coarctation of aorta, 644-648 device occlusion, 648-650

dilation of pulmonary valve in cyanotic congenital heart disease, 652-653

endomyocardial biopsy, 651 foreign body retrieval, 651

percutaneous pericardial drainage, 651-

stenosis of individual pulmonary veins, 652

valvular aortic stenosis, 641-644 valvular pulmonary stenosis, 637-641

open repair of cardiac defects, 659-780 aortic valve stenosis/pulmonary valve stenosis, 676

monitoring and anesthesia, 662-665 myocardial preservation, 666-667 preoperative management, 661-662 pulmonary atresia with intact ventricular septum, 676-677

techniques of cardiopulmonary bypass and hypothermic arrest, 665-666

tetralogy of Fallot with or without pulmonary atresia, 675-676

total anomalous pulmonary venous connection, 668-675

transposition of great arteries, 667 transesophageal pacing and electrocardiography, 619-631

diagnostic and therapeutic uses, 624-

electrocardiography, 619-620 pacing, 620

techniques, 621-623 ventricular rhythm with intermediate

rate, 609-618 Cardiovascular system, maternal, in twin pregnancy, 42-43

Catheters, and echocardiography, 556 Central nervous system, and digitalis glycosides, 497

Cephalosporins, and chloramphenicol, for syphilis, 296

third-generation, 380-381 Cerclage, cervical, 61

and premature labor, 73

Cesarean section, twin pregnancy, 116-120 Chlamydial infections, 321-350

diagnosis, 340-341

antigen detection, 341 cultures, 340

cytologic, 340 serologic, 340

microbiology, 322-325 neonatal infections, 335-340

conjunctivitis, 335-337 pneumonia of infancy, 337-340 and postpartum endometritis, 334-335 Chlamydial infections (Continued) and pregnancy, 326–334 adverse outcomes, 331–334 epidemiology, 326–328 immunologic factors, 328–331 psitticosis during pregnancy, 325 treatment, 341–344 conjunctivitis, 343–344 pneumonia, 344 during pregnancy, 342–343

Circulation, digitalis effects, 497–498 Clots, echocardiography of, 553–555 Coagulation, maternal, in twin pregnancy,

43 Conception, infections before, 163-164

Congenital anomalies in twins, antepartum complications, 80 concordance, 150 conjoined twins, 149–150 morbidity, 132–133 structural defects, 147–149 Congenital heart disease, echocardiography

of, 523-565 acyanosis and increased pulmonary blood

flow, 524–532
with cvanosis and decreased pulmonary

vascularity, 540-546 with cyanosis and increased pulmonary

vascularity, 546-552 with ventricular outflow obstruction, 532-539

See also Surgery, closed heart.
Congenital infections, 163–188
before conception, 163–164
retroviruses, endogenous, 163–164

before implantation, 164–166 viral, 164–165

after implantation, 166–175 bacterial, 173–174 nonspecific and indirect effects, 166 protozoan, 174–175 viral, 167–173

perinatally acquired, 175–180 bacterial, 178–180 viral, 176–178

tuberculosis, 315-316 Congenital malformations, from influenza, 262-263

mumps infection, 265 parvovirus B19 infection, 279

Congestive heart failure, angiotensin converting enzyme inhibitors, 461 body fluid homeostasis, 451–453

digoxin effects, 503–504 diuretic effects, 455–461 loop diuretics, 456–458 potassium-sparing diuretics, 460–461 thiazides, 460

Conjunctivitis, chlamydial, 335–337, 343–344

Contractility, myocardial, digoxin effects, 503-505

Copper, maternal, in twin pregnancy, 45 Cost-effectiveness, chemoprophylaxis for group B streptococci, 845–846

Counseling and testing, HIV infection in pregnancy, 198-199

Coxsackievirus infections. See Echovirus and group B coxsackievirus infections.

Cyanosis in congenital heart disease, with decreased pulmonary vascularity, 540-546

with increased pulmonary vascularity, 546-552

Cytomegalovirus, congenital infections, 168–170
fetal infection, 205–208
maternal infection, 203–205
maternofetal transmission, 205
prevention, 208
in TORCH complex, 730

Death of one fetus, 65, 81–82 Delivery, of tiny infant, effects on outcome, 778–780

Delivery of twins, anesthesia, 107–122 algorithm, 120 analgesia, 111–113 cesarean section, 116–120 labor and delivery, 110–111 pathophysiology, 109–110 physiology, 107–108 vaginal delivery, 113–116

management, 93–106
general preparations, 94–96
postpartum care, 104
schemes for, 96–101
technique of, 101–103
unsuspected twins, 103–104
trauma of twin pregnancy, 5–6

Device occlusion, 648–650 Diabetes, infant cardiomyopathy, 552–553 maternal, 83–84

Diagnosis, in antepartum management, 55-57

of placental zygosity, 20-25 of twin pregnancy, 8-10 ultrasonography role, 57

Diaphagmatic hernia, congenital, 950–951 Diet, in antepartum management, 60 Digitalis, 491–521

digoxin-like immunoreactive substances, 510-518

pregnancy, preeclampsia, and hereditary hypertension, 517–518 sodium homeostasis and third factor, 511–516

glycosides, 491-506

administration and dosage, 506 in cardiac failure, 497–498 cellular effects, 493 digoxin pharmacokinetics, 498–503 indications for, 503–506 myocardial contractility, 503–505 for supraventricular tachycardias, 505–506

pharmacologic actions of, 493–497 autonomic nervous system, 496–497 cardiac, 494 central nervous system, 497

vascular, 494 receptors, 492-493

intoxication and digoxin-specific Fab antibody fragments, 506-510

Digoxin-like immunoreactive substances, 510-518

in neonates, 510-511 in pregnancy, 511 and renal failure, 511

sodium homeostasis and third factor, 511–516

in newborn, 516-517

pregnancy, preelampsia, and hereditary hypertension, 517-518

Diuresis, and respiratory distress syndrome, 870-871

Diuretics, in congestive heart failure, 455–461

loop, 456-458 potassium-sparing, 460-461

thiazides, 460
DNA viruses, congenital infections, 171

Dobutamine, 475–477 Dopamine, 474–475

Drug monitoring, antibiotic therapy of newborn, 384–385

Echocardiography

in neonatal endocarditis, 596-597 Echocardiography, two-dimensional and

Doppler, 523-565 catheters, 556

clots and vegetations, 553-555

congenital heart disease, with acyanosis and increased pulmonary blood flow, 524-532

atrial septal defect, 528–529 atrioventricular septal defects, 532 patent ductus arteriosus, 524–528 ventricular septal defects, 529–532

ventricular septal detects, 529-532 with cyanosis and decreased pulmonary vascularity, 540-546 atrial right-to-left shunt, 545-546

ventricular right-to-left shunt, 540-545 with cyanosis and increased pulmonary vascularity, 546-552

arterial markings, 546-549

venous markings, 549-552

with ventricular outflow obstruction, 532-539

left ventricular outflow obstruction, 533-538

right ventricular outflow obstruction, 538–539

infant of diabetic mother cardiomyopathy, 552-553

limitations, 556-557

prenatal diagnosis of congenital heart disease, 557-562

examination techniques, 558-559 indications, 558

rhythm abnormalities in utero, 559-561 structural and functional abnormalities in utero, 559

ultrasound effects on fetus, 561-562 tumors, 555-556

Echovirus and group B coxsackievirus infections, 233-246

animal studies, 234-235

enterovirus, neonatal infections, 236–240 clinical manifestations, 238–239 incidence, 236–237 mechanisms of transmission, 237–238 severity and outcome, 239–240

nomenclature, 233 nonpolio infections in pregnancy, 235—

236 epidemiology and clinical disease, 234 history, 233

in newborn nurseries, 240-241 Electrocardiography. See Transesophageal

pacing and electrocardiography. Electrolytes, maternal, in twin pregnancy,

45-47 See also Fluid and electrolyte therapy, premature infant.

Electrophysiology, and digitalis glycosides, 494

Embryology of twinning, 15-19 dizygous, 19

monozygous, blastomere separation, 16 inner-cell mass duplication, 16–19 and neonatal problems, 141–142

Encephalitis, and herpes simplex virus in-

fections, 907–908 Endocarditis, neonatal, 587–608

complications, 602–603 diagnosis of, 594–598

blood culture, 595–596 clinical findings, 594–595 echocardiography, 596–597

laboratory findings, 595, 597–598

etiology of, 592-594 incidence, 587-588

pathogenesis of, 588-592

Endocarditis (Continued) pathogenesis of, infective, 590-591 nonbacterial thrombotic, 588-590 prognosis, 603 treatment, 598-602 Endometritis, postpartum, and chlamydia, 334-335 Enterocolitis, necrotizing, 151 Enterovirus infections. See Echovirus and group B coxsackievirus infections. Environment, during transition to extrauterine life, 867-869 Epidemiology, and antibiotic therapy of newborn, 366-367 chlamydial infections, 326-328 enterovirus infections, 234 human immunodeficiency virus (HIV), 189-190 hypertension in neonates, 569-570 measles, 267-268 parvovirus B19, 276-277 syphilis, gestational and congenital, 287of twin pregnancy, 123-140 Epinephrine, 478-479 Epstein-Barr virus, 221-224 fetal infection, 223-224 maternal infection, 221-222 maternofetal transmission, 222-223 prevention, 224 in TORCH complex, 736-740

background, 736 laboratory diagnosis, 736-737 and pregnancy, 737-740 Erythema infectiosum (fifth disease), 277 Erythromycin, for syphilis, 294-295 Ethacrynic acid, 459

Ethics committees. See Baby Doe commit-Extracellular fluid volume, 449-451

Extracorporeal membrane oxygenation. See Oxygenation, extracorporeal membrane. Eye, herpes infections, 908

Fetus, antenatum management, 61-62 death of one, 65, 81-82 echocardiography, two-dimensional and Doppler, 557-562 examination techniques, 558-559 indications for, 558 rhythm abnormalities in utero, 559-561 structural and functional abnormalities in utero, 559 ultrasound effects. 561-562

infections, cytomegalovirus, 205-208 Epstein-Barr virus, 223-224 herpes simplex, 210-213

influenza, 261-262 measles, 269-270 parvovirus B19, 278-280 rubella, 250-253 syphilis, 290-291 tuberculosis, 306-308 varicella-zoster, 217-219 monstrosities, and placental changes, 32 in twin pregnancy, growth, 47-48 lung maturity, 48, 74-75 ultrasonography, 58-59 umbilical cord measurement, 48-49 Fetus compressus, 32 Fetus papyraceous, 32 Fibroelastosis, endocardial, 265-266 Fibronectin, for neonatal sepsis, 767 Fluid and electrolyte therapy, premature infant, 863-878 homeostasis during transition to extrauterine life, 864-869 body water composition, 864-866 environment impact, 867-869 renal function, 866-867 metabolic basis for maintenance, 864 pathophysiology of disease of prematurity, bronchopulmonary dysplasia, 871-872 diuresis and respiratory distress syndrome, 870-871 very low birth weight infant, 873-874

Gap-junction formation, and retinopathy, 921-922 Gene regulation of cardiac actin, 438 Gestational age, antenatal and postnatal assessment of, 776-777 relation to birth weight and intrauterine growth failure, 777 Glomerulus, during transition to extrauter-

Foreign body retrieval, 651

Furo e.nide, 458-459

ine life, 866 Granulocyte transfusions, 758-761 Growth, cardiac, in hemodynamic overload,

hormonal effects, 434-436 and development of twins, 47-48, 151abnormalities, 4

intrauterine retardation, 126-127, 142twin discordance, 80-81, 150

ultrasonography, 58-59 relation to birth weight and gestational age, 777

Guidelines, AAP, Baby Doe committees, 795-796

Heart, congenital disease, with acyanosis and increased pulmonary blood flow, 524-532

patent ductus arteriosus, 524-528

maturation of, 421-446

biochemical basis, 421–427 myofibrils, 427

sarcolemma, 426–427

sarcoplasmic reticulum, 423-425

molecular basis, 427-440

actin, gene regulation, 438 developmental regulation, 433–434 during pressure overload, 437 growth, hemodynamic overload,

heavy-chain distribution, 430-431 hormonal effects, 434-436

myosin, 428-430

hormonal effects on growth, 437–438 interrupted aortic arch, 671–672 isoform shifts, 436–437

light-chain distribution, 431–433 tropomyosin, 438–439

tropomyosin, 438–43

open repair of defects, 659-680 aortic valve stenosis/pulmonary valve

stenosis, 676 monitoring and anesthesia, 662-665

myocardial preservation, 666-667 preoperative management, 661-662

prostaglandin E<sub>1</sub>, 661–662 pulmonary atresia with intact ventricular septum, 676–677

specific lesions, 667–670

total anomalous pulmonary venous connection, 668-670

truncus arteriosus, 672-675 transposition of great arteries, 667 techniques of cardiopulmonary bypass

and hyperthermic arrest, 665-666 tetralogy of Fallot with or without pul-

monary atresia, 675–676 physiology in neonates, 467–471 protein regulation of cytosolic calcium,

440-442 phospholamban, 442

sarcolemmal, 442 sarcoplasmic reticular Ca, Mg-dependent ATPase, 440–442

Hemodynamics, and cardiac growth, 434 Hemorrhage, periventricular/intraventricular, vitamin E therapy, 960

Hepatitis B virus, congenital infections, 177-178

Herpes simplex virus infections, 903-916 congenital infections, 170-171, 176-177 diagnosis, 908-910

clinical evaluation, 908–909 laboratory assessment, 909–910

epidemiology of genital HSV-2 infections, 903-905 fetal and neonatal infections, 210-213 and HIV infection, 193-194

maternal infection, 193–194

maternofetal transmission, 210

neonatal, 905-908 acquisition of infection, 905

clinical presentation, 906 intrapartum and postpartum infection, 906–908

intrauterine infection, 906

pathogenesis, 905-906 in pregnancy, 203-231

cytomegalovirus, 203–208 fetal infection, 205–208

> maternal infection, 203–205 maternofetal transmission, 205

prevention, 208

Epstein-Barr virus, 221–224 fetal infection, 223–224 maternal infection, 221–222 prevention, 224

herpes simplex, 208-215 fetal and neonatal infections, 210-

maternal infection, 208-210 maternofetal transmission, 210 prevention, 213-215

fetal infection, 215–221 fetal infection, 217–219 maternal infection, 215–217

maternofetal transmission, 217, 222-223

neonatal infection, 219 prevention, 219-221

prevention, 213–215 in TORCH complex, 731

treatment, 910–913 antiviral medications, 910–913 background, 910

Homeostasis of body fluids, 447–466 body fluid tonicity, 448–449

in congestive heart failure, 451–453 angiotensin converting enzyme inhibitors, 461

tors, 461 diuretics, 455–461

extracellular fluid volume, 449–451 fluid balance and distribution, 447–448 and patent ductus arteriosus, 453–454 See also Fluid and electrolyte therapy,

premature infant.

Hormones, and cardiac growth, 434-436

actin role, 437–438 Human immunodeficiency virus (HIV), 734–

736 background, 734

congenital infections, 171-173

laboratory diagnosis, 735-736 in pregnancy, 189-202, 734-735

antepartum care, 192-195 antiviral agents, 195 candidiasis, 195 Human immunodeficiency virus (HIV)
(Continued)

in pregnancy, antepartum care, herpes, simplex, 193-194

Kaposi's sarcoma, 195

Pneumocystis carinii pneumonia, 192–193

toxoplasmosis, 194–195

tuberculosis, 195

counseling and testing, 198-199

opidemiology, 189-190 intrapartum, 196-197

postpartum, 197-198 pregnancy effects on HIV disease, 190-

and neonatal outcome, 191

Human parvovirus B19. See Parvovirus B19, human.

Hyaline membrane disease, in twin pregnancy, 128-130, 150-151

Hydramnios, pathophysiology of, 32 Hydrocephalus, congenital, 947–950

Hydronephrosis, congenital, 945–947

Hyperbilirubinemia, 982-985 Hyperoxemia, and retinopathy, 920-921

Hypertension, hereditary, and digoxin-like immunoreactive substances, 517–518 neonatal, 567–585

blood pressure measurement, 567-569 causes of, 570-573

clinical signs and symptoms, 573–575

epidemiology, 569-570 evaluation in neonate and infant, 575-577

management of, 577-579 prognosis, 579-580

pregnancy-induced, antenatum management, 64-65, 82-83

Hypothermic arrest, 666

IgM, total cord levels, in TORCH complex, 729–730

Immunoglobulin therapy, for neonatal sepsis, 761-767

Immunology, of chlamydial infections, 328-331

Immunosuppression, and parvovirus B19 infection, 278

Implantation, infection before, 164–166 viral, 164–165

infections after, 166-175 bacterial, 173-174 nonspecific and indirect effect

nonspecific and indirect effects, 166 protozoan, 174–175 viral, 167–173

Infant, very low birth weight, and maintanance fluid therapy, 873-874 See also *Tiny infant outcome*. Infections, in pregnancy, antibiotic therapy of newborn, 365-388

incidence of infection, 365-366

chlamydial infections, 321-350 diagnosis, 340-341

epidemiology, 326–328

immunologic factors, 328–331 microbiology, 322–325

neonatal infections, 335-340

postpartum endometritis, 334–335 psitticosis, 325

treatment, 341-344 congenital, 163-188

before conception, 163–164 before implantation, 164–166 after implantation, 166–175 perinatally acquired, 175–180

echovirus and group B coxsackievirus, 233-246

herpesvirus, 203-231

cytomegalovirus, 203–208 Epstein-Barr virus, 221–224 herpes simplex, 208–215

varicella-zoster virus, 215-221

human immunodeficiency virus (HIV), 189-202

antepartum, 192-195

counseling and testing, 198-199 epidemiology, 189-190

intrapartum, 196–197 postpartum, 197–198

pregnancy effects on HIV disease, 190– 191

influenza, 259-264

measles, 267-270 mumps, 264-267

parasites, 351-363 malaria, 358-362

toxoplasmosis, 354-358

parvovirus B19, 273-286

rubella, maternal and congenital syndrome, 247-257

syphilis, gestational and congenital, 287-303

epidemiology, 287-289

followup and retreatment, 299-300 and pregnancy, 289-293

prevention, 293-297

treatment, complications, 297–298 neonatal, 298–299

tuberculosis, 305-319

clinical manifestations and diagnosis, 308–312

pathogenesis, 306-308 treatment, 312-317

See also Streptococci, group B, antimicrobial prophylaxis.

Influenza, 259–264

clinical course, 260-264

congenital malformations, 262-263

maternal infection, 260–261 nosocomial infection in neonate, 263– 264

transplacental passage and fetal infection, 261-262

virus antigens, 259-260 Inner-cell mass duplication, 16-19

Inotropic and afterload-reducing agents, 467–489

cardiac physiology, 467-471

developmental aspects, 471-472 and digitalis glycosides, 494

vasoactive drug therapy, 473-479

dobutamine, 475–477 dopamine, 474–475 epinephrine, 478–479 isoproteronol, 477–478

vasodilators, 479–483 amrinone, 483

nitroglycerine, 481 nitroprusside, 481–483

Intensive care, neonatal, and surfactant replacement therapy, 899-900

Interventional cardiac procedures, 633–658 balloon atrial septostomy, 634–635 blade atrial septostomy, 635–637

coarctation of aorta, 644–648 native, 644–646

recurrent and postoperative obstructions. 647–648

device occlusion, 648–650

dilation of pulmonary valve in cyanotic congenital heart disease, 652–653

endomyocardial biopsy, 651 foreign body retrieval, 651

percutaneous pericardial drainage, 651–652

stenosis of individual pulmonary veins, 652

valvular aortic stenosis, 641-644 valvular pulmonary stenosis, 637-641 Intrauterine treatment, digoxin uses, 505-

506 Iron, maternal, in twin pregnancy, 45

Isoproteronol, 477-478

Jarisch-Herxheimer reaction, 297-298

Kaposi's sarcoma, HIV infection in pregnancy, 195

Kernicterus, 965–990 bilirubin-binding assays, 975–982 pathophysiology, 968–974 phototherapy, 974–975 physiology of blood-brain barrier, 966–968

sequelae of hyperbilirubinemia, 982-985

Kidney function, maternal, in twin pregnancy, 43-44 during transition to extrauterine life, 866-

867

Labor in twin pregnancy, 49-50, 87-91

analgesia, 111-113 anesthesia, 110-111

preterm, 71-77

antenatum management, 64 bedrest, prophylactic, 71-73

beta-sympathomimetic agents, 74 cervical cerclage, 73

delivery, and fetal lung maturation, 74-75

progesterone therapy, 73 treatment of, 74

Light exposure, and retinopathy of prematurity, 924-925

Listeria monocytogenes, 180 Lung maturity, in twin pregnancy, 48

amniocentesis for, 63 and premature labor, 74–75

Lung surfactants, extract, 893-894 synthetic, 894-896

Malaria, during pregnancy, 358-362 Malformations in twin pregnancy, 3-4

Measles, 267-270

clinical course, 268-270 fetal effects, 269-270

during pregnancy, 269 epidemiology, 267-268 virus, 270

Membranes, premature rupture of (PROM), 851-862

management, 853-859

preterm, 856-859 very preterm, 855-856

mortality/morbidity, 853 prevention of, 853

Morbidity and mortality, extremely low birth weight infants, 780–783

of twin pregnancy, 3-6, 123-140

abnormal growth, 4 birth asphyxia, 128

congenital anomalies, 132-133 hyaline membrane disease, 128-130

incidence, 124-125 malformations, 3-4

maternal, 6-8

neurologic morbidity, 131-132

perinatal, 142

premature rupture of membranes, 853 prematurity, 4-5

prematurity/low birth weight rate/intrauterine growth Morbidity and mortality (Continued) of twin pregnancy, respiratory morbidity, 130-131 retardation, 126-127

teenage pregnancies, fetal, 936 maternal, 936-939 neonatal, 935-936

trauma at delivery, 5-6

Mother, in twin pregnancy, 41-47 alimentary system, 44

carbohydrate metabolism, 44

coagulation, 43

morbidity and mortality, 6-8 nutrition, 44-45

physical characteristics, 41-43

renal function, 43-44

respiratory function, 43

serum protein and electrolytes, 45-47 zinc, copper, and iron levels, 45

See also Infections, in pregnancy; Twin pregnancy, antenatum complications.

Mouth, herpes infections, 908

Mumps, 264-267

clinical course and epidemiology, 264-267 congenital malformations, 265 endocardial fibroelastosis, 265-266 postnatal infection, 266-267

virus, 264

Myofibrils, in heart maturation, 427 Myosin, in heart maturation, 428-434 developmental regulation, 433-434 heavy-chain distribution, 430-431 light-chain distribution, 431-433

Neonatal problems in twins, 141-158 congenital malformation, 147-150 embryology, zygosity, placentation, 141-

group B streptococcal disease, 151 growth and development, 151-153 hyaline membrane disease, 150-151

necrotizing enterocolitis, 151 parenting, 153-154

perinatal mortality, 142 prematurity, low birth weight, intrauterine development, 142-144

retinopathy of prematurity, 151 twin transfusion syndrome, 144-147 Neurologic morbidity, in twin pregnancy,

131 - 132Newborn infants, antibiotic therapy, 365-388

administration route, 382 adverse effects, 386 bacterial infections, 367-368 blind therapy, 375-377

cephalosporins, third-generation, 380-

diagnosis of infection, 368-372 dosage, 382

epidemiology, 366-367 evaluation, 380

incidence of infection, 365-366 monitoring of therapy, 384-385

new antibiotics, 381 pharmacology and pharmacokinetics,

372-375 policy, 375

problem areas, 377-380

toxicity, 385-386

treatment duration, 382-384 chlamydial infections, 335-340

conjunctivitis, 335-337, 343-344 pneumonia, 337-340, 344

digoxin-like immunoreactive substances, 510-511

enterovirus infections, 236-240 clinical manifestations, 238-239

incidence, 236-237 mechanisms of transmission, 237-238 outbreaks in newborn nurseries, 240-

severity and outcome, 239-240 herpes simplex infections, 210-213 influenza, nosocomial infection, 263-

inotropic and afterload-reducing agents, 467-489

cardiac physiology, 467-471 developmental aspects, 471-472 guidelines for use, 484

inotropy, 473

vasoactive drug therapy, 473-479 vasodilators, 479-483

mumps infection, 266-267 sodium homeostasis, 516-517

syphilis infections, 298-300 tuberculosis, 306-308, 316-317

varicella infections, 219 See also Cardiovascular disease in neonates.

Nitroglycerine, 481

Nitroprusside, 481-483

Nutrition, maternal, in twin pregnancy, 44-

Oxygen toxicity, and retinopathy, 922-923 Oxygenation, extracorporeal membrane, 815-829

basic techniques, 817-818 complications and outcomes, 824-826 criteria for patient selection, 821-824 future considerations, 826-827

historical background, 818-821 therapeutic strategies, 816-817 Pacing. See Transesophageal pacing and electrocardiography.

Parasites, and pregnancy, 351-363 malaria, 358-362

toxoplasmosis, 354-358 Parenting of twins, 153-154

Parvovirus B19, human, 273-286

clinical characteristics, 277-278 aplastic crisis, 277-278 arthritis, 278

erythema infectiosum (Fifth disease),

in immunosuppressed patients, 278 and other diseases, 278

diagnosis, 274-276

epidemiology, 276-277 and pregnancy, 278-282

congenital anomalies, 279 fetal death, 278-280

in TORCH complex, 732-734 virus characterization, 274

Patent ductus arteriosus, body fluid homeostasis, 453-454

digoxin effects, 504

echocardiography, two-dimensional and Doppler, 524-528

Penicillin, for syphilis, 293-294 allergy and desensitization, 296-297

Percutaneous pericardial drainage, 651-652 Perinatal paradigm, 801-813

neonatal care, 807-809 obstetric care, 804-807

residence for mothers, 813-812

pH, physiologic, and normal oxygenation, 816-817

Pharmacology and pharmacokinetics, antibiotic therapy of newborn, 372-375 of digoxin, 498-503

Phospholamban, 442

Phototherapy, 974-975 Placenta, 141-142

in multiple pregnancy, 13-40 classification, 14-15

> dizygotic, 14-15 monozygotic, 15 third type, 15

diagnosis of zygosity, 20-25

embryology of, 15-19 dizygous, 19

monozygous, 15-19 etiology, 19-20

pathology, 25-35 dichorionic-diamnionic fused, 32-35 dichorionic-diamnionic separate, 35 monochorionic-diamnionic, 28-32 monochorionic, monoamnionic, with conjoined twins, 27-28

Pneumonia, chlamydial, 337-340, 344

Pneumocystis carinii, in pregnancy, 192-193

Polyhydramnios, antenatum management,

Potassium balance, during transition to extrauterine life, 867

Preeclampsia, and digoxin-like immunoreactive substances, 517-518

Pregnancy, and B19 infection, 732-733 and digoxin-like immunoreactive sub-

stances, 511, 517-518

and Epstein-Barr virus infection, 737-740

higher order multiple, 35-38 and HIV infection, 734-735

and parasites, 351-363 malaria, 358-362

toxoplasmosis, 354-358 racial differences, 745-754

risk factors, 750-752 trends, 745-750

twin. See Twin pregnancy.

See also Infections, in pregnancy; Teenage pregnancy. Prematurity, in twin pregnancy, 4-5, 126-

127, 142-144

Prenatal care, controversies in, Baby Doe committees, 789-800

assessment, 794-798

ethical decisions, 794-795 federal regulations and guidelines,

795-796 legal problems, 796

public image, 796-798 assumptions and goals of ethics commit-

tees, 790-791 origin, 789-790

similarities and differences, 791-792 suggestions, 798-1/99

types of ethical questions, 792-794

fluid and electrolyte therapy, 863-787 homeostatic maintenance, and extrauterine life, 864-869

metabolic basis for maintenance, 864 and pathophysiology of diseases of prematurity, 869-874

herpes simplex virus infections, 903-916 diagnosis, 908-910

epidemiology, 903-905

neonatal infections, 905-908 acquisition of infection, 905

clinical presentation, 906 intrapartum and postpartum infec-

tion, 906-908 intrauterine infection, 906

pathogenesis, 905-906 treatment, 910-913

kernicterus, 965-990

bilirubin-binding assays, 975-982 pathophysiology, 968-974

phototherapy, 974-975 physiology of blood-brain barrier, 966-968

Prenatal care (Continued)

kernicterus, sequelae of hyperbilirubinemia, 982-985

oxygenation, extracorporeal membrane, 815–829

basic techniques, 817-818

complications and outcomes, 824–826 criteria for patient selection, 821–824 future considerations, 826–827

historical background, 818-821 therapeutic strategies, 816-817

paradigm changes, 801-813 neonatal care, 807-809

obstetric care, 804-807

residence to mothers, 810-812 premature rupture of membranes, 851-

management, 853–859

mortality/morbidity, 853

prevention of, 853

racial differences in pregnancy outcomes, 745–754

risk factors, 750-752 trends, 745-750

retinopathy of prematurity, 917–928

description, 919

development of retina, 918-919 pathophysiology, 919-926

research priorities, 926 risk factors, 919

visual sequelae, 926 rickets of prematurity, 879-790

causes of, 879-885 prevention, 885-886

sepsis, neonatal, 755-771

exchange transfusion, 755-758 fibronectin, 767

granulocyte transfusions, 758-761 immunoglobulin therapy, 761-767

streptococci, group B, antimicrobial prophylaxis, 831–850

ascertainment of cases, 844–845 blanket versus selective strategies, 833– 837

cost-effectiveness, 845-846

regimen choice, 844 side effects, 845

timing of chemoprophylaxis, 837–844

surfactant replacement therapy, 891–902 and neonatal intensive care, 899–900 outcome criteria, 896–898

side effects, 898-899 variety of surfactants, 892-896

variety of surfactants, 892–896 surgery, fetal, 943–953

congenital diaphragmatic hernia, 950– 951

congenital hydrocephalus (ventriculomegaly, 947-950

congenital hydronephrosis, 945–947 future applications, 951

teenage pregnancy, 929-942

in future, 939

low birthweight outcomes, 933–935 maternal mortality, 936–939

neonatal mortality, 935-936 and other developed countries, 940

and other developed countries, 940 prenatal mortality, 936 trends in births, 929–933

tiny infant outcome, 773-788

antenatal and postnatal assessment of gestational age, 776-777

birth weight, gestational age, and intrauterine growth failure, 777

definitions and terminology, 774–776

delivery type, effects on outcome, 778-780

extremely low birth weight infants, 780-785

obstetric correlates and determinants of outcome, 777-778

TORCH complex, 727-744

diagnostic evaluation, 728-732 Epstein-Barr virus, 736-740

human immunodeficiency virus, 734–

human parvovirus B19, 732-734

vitamin E therapy in high-risk neonates, 955-963

clinical problems, 957-959

normal absorption and deficiency states, 955–957

tocopherol prophylaxis for oxygen toxicity, 959-960 working guidelines, 960-961

President's Commission, Baby Doe committees, 795-796

Pressure overload, and cardiac actin, 437 digoxin effects, 504

Progesterone, prophylactic, and premature labor, 73

Prophylaxis, antibiotic, and premature rupture of membranes, 857

antimicrobial. See Streptococci, group B, antimicrobial prophylaxis.

Prostaglandin E<sub>1</sub>, in open heart surgery, 661-662

Proteins, and cytosolic calcium, 440–442 phospholamban, 442

sarcolemmal, 442 sarcoplasmic reticula

sarcoplasmic reticular Ca, Mg-dependent ATPase, 440-442

serum, maternal, in twin pregnancy, 45-47

Protozoan infections, after implantation, 174-175

Psitticosis, and pregnancy, 325

Public image, Baby Doe committees, 796-

Pulmonary artery banding, 684-688

Pulmonary atresia, with intact ventricular septum, 676-677 and tetralogy of Fallot, 675-676 Pulmonary disease, arterial markings, 546-

chronic, digoxin effects, 504 venous marking, 549-552

Pulmonary valve, dilation of, in cyanotic congenital heart disease, 652-653 stenosis, 676

Pulmonary vein stenosis, 652

Racial differences in pregnancy outcomes, 745-754

risk factors, 750-752

trends, 745-750

Receptors, digitalis, 492-493

Renal failure, and digoxin-like immunoreactive substances, 511

Renin-angiotensin system, and body fluid homeostasis, 450, 452

Reperfusion injury, 923

Residence for Mothers, 813-812

Respiratory distress syndrome, and maintenance fluid therapy, 870-871

Respiratory function in twin pregnancy, maternal, 43 morbidity, 130-131

Retinopathy of prematurity, 151, 917-928

description, 919 development of retina, 918-919

pathophysiology, 919-926

antioxidants, 923-924 gap-junction formation, 921-922

hyperoxemia, 920-921 immaturity role, 919-920

light exposure, 924-925 oxvgen toxicity, 922-923

reperfusion injury, 923

systemic illness, 926

vasoconstriction, 921 research priorities, 926

risk factors, 919

visual sequelae, 926

vitamin E therapy, 959-960

Retroviral infections, before conception, 163-164

congenital, 171-173

Rickets of prematurity, 879-890 causes of, 879-885

prevention, 885-886

streptococcal sepsis, 833-834 Risk factors in pregnancy, racial differences,

750-752 RNA viruses, congenital infections, 168 Rubella, 247-257

congenital infections, 167-168 fetal infection, 250-253

maternal infections, 247-249 maternofetal transmission, 249 prevention, 253-255

in TORCH complex, 730-731

Sarcolemma, in heart maturation, 426-427,

Sarcoplasmic reticulum, in heart maturation, 423-425

Ca, Mg-dependent ATPase, 440-442

Sepsis, neonatal, 755-771

exchange transfusion, 755-758 fibronectin, 767

granulocyte transfusion, 758-761 immunoglobulin therapy, 761-767

Septostomy, balloon atrial, 634-635 blade atrial, 635-637

Serologic tests, for chlamydial infections,

for syphilis, 289-290

Sexual partners, syphilis testing, 300

Shunts, systemic to pulmonary artery, 682-

Skin, herpes infections, 908

Sodium homeostasis, and digoxin-like immunoreactive substances, 511-516 during transition to extrauterine life, 866

Spironolactone, 460-461

Steroids, in premature rupture of membranes, 856-857

Stillbirths, and enterovirus infections, 236 Streptococci, group B, antimicrobial prophy-

laxis, 831-850 ascertainment of cases, 844-845

blanket versus selective strategies, 833-

maternal carriage, 834-837 risk factors, 833-834

congenital infections, 178-180

cost-effectiveness, 845-846 regimen choices, 844

side effects, 845

timing of chemoprophylaxis, 837-844 intrapartum, 841-844 postnatal, 838-841 prenatal, 838

in twins, 151

Sudden infant death syndrome. See Arrhythmias, cardiac, and sudden infant death syndrome.

Surfactant replacement therapy, 891-902 and neonatal intensive care, 899-900 outcome criteria, 896-898

side effects, 898-899

types, 892-896

extracts of lung surfactant, 893-894 from human amniotic fluid, 892-893 synthetic, 894-896

Surgery, cardiac, digoxin uses, 504–505 closed heart, for congenital heart disease, 681–697

aortic valvular stenosis, 692–696 atrial septectomy, 688–692 palliative operations, 681–682 pulmonary artery banding, 684–688 systemic to pulmonary artery shunts, 682–684

See also Heart, open repair of defects; Interventional cardiac procedures. fetal. 943–953

congenital diaphragmatic hernia, 950–951

congenital hydrocephalus (ventriculomegaly), 947–950 congenital hydronephrosis, 945–946

future applications, 951 Syphilis, gestational and congenital, 173-

174, 287-303 epidemiology, 287-289

followup and retreatment, 299–300 infants, 300

postpartum, 300 during pregnancy, 299–300

sexual partners, 300 neonatal treatment, 298-299

and pregnancy, 289–293 clinical diagnosis, 290

fetal infection, 290-291 laboratory diagnosis, 292-293

serologic tests, 289–290 prevention, 293–297

cephalosporins and chloramphenicol,

erythromycin, 294-295 penicillin, 293-294

allergy and desensitization, 296-297 prenatal care, 293

tetracycline, 295-296 treatment, 297-298

failures, 298

Jarisch-Herxheimer reaction, 297-298

Tachycardias, supraventricular, digoxin uses, 505–506

transesophageal stimulation for termination and initiation, 628 See also *Arrhythmias*.

Teenage pregnancy, 929–942

comparison to other developed countries,

future trends, 939

low birthweight outcomes, 933-935

mortality, fetal, 936 maternal, 936–939 neonatal, 935–936 trends in births, 929-933 mothers aged 10 to 14 years, 931-933

mothers aged 15-19 years, 929-931
Teratogenicity, and enterovirus infections,

236 Tetracycline, for syphilis, 295–296

Tetralogy of Fallot, with or without pulmonary atresia, 675-676

Thiazides, 460 Third factor, 511-516

Thrombotic nonbacterial endocarditis, 588–

Tiny infant outcome, 773-788

antenatal and postnatal assessment of gestational age, 776-777

birth weight, gestational age, and intrauterine growth failure, effects on survival, 777

definitions and terminology, 774-776 delivery types, effects on outcome, 778-

extremely low birth weight, 780–785 follow-up during infancy and childhood, 783–785

neonatal and predischarge morbidity and survival, 780–783

obstetric correlates and determinants of outcome, 777-778

Tocolysis, in premature rupture of membranes, 856

prophylactic, in antepartum management, 61

Tocopherol. See Vitamin E therapy in highrisk neonates.

TORCH complex, 727-744 diagnostic evaluation, 728-732

cytomegalovirus, 730 expanded TORCH, 732 herpes simplex virus, 731 rubella, 730–731

total cord IgM, 729–730 toxoplasmosis, 730 Epstein-Barr virus, 736–740

background, 736 laboratory diagnosis, 736–737 and pregnancy, 737–740

human immunodeficiency virus, 734–736 background, 734 laboratory diagnosis, 735–736

and pregnancy, 734-735 human parvovirus B19, 732-734

background, 732 laboratory diagnosis, 733–734 and pregnancy, 732–733

Total anomalous pulmonary venous connection (TAPVC), 668–670

interrupted aortic arch, 671-672 nonobstructed, 670

obstructed infracardiac, 668-669

truncus arteriosus, 672-675

Toxicity, and antibiotic therapy of newborn, 385-386

Toxoplasma gondii, 174-175

Toxoplasmosis, and HIV infection, 194-195 during pregnancy, 354-358 in TORCH complex, 730

Transesophageal pacing and electrocardiography, 619-631

diagnostic and therapeutic uses, 624-629 antiarrhythmic therapy evaluation, 629 atrial pacing, 627-628

complications, 629

esophageal ECG, 624-626

tachycardia, termination and initiation of, 628

ventricular pacing, 626-267 electrocardiography, 619-620

pacing, 620

techniques, 621-623

electrocardiogram recording, 621–622 electrode placement, 621 pacing, 622–623

Transfusions, exchange, for neonatal sepsis, 755-758

Transposition of great arteries, 667

Triamterene, 460-461

Tropomyosin, in heart maturation, 438-439 Troponin, 440

Truncus arteriosus, 672-675

Tuberculosis, 305-319

clinical manifestations and diagnosis, 308–312

and HIV infection, 195

pathogenesis, 306-308

fetus and newborn, 306-308 maternal, 306

treatment, 312-317

congenital or neonatally acquired, 315-316 infant of tuberculous mother, 316-317

maternal, 312-314 prevention during pregnancy, 316

Tumors, echocardiography of, 555–556

Twin pregnancy, antepartum, complications, 79–86

anemia, 83

carbohydrate metabolism, diabetes mellitus, 83-84

congenital anomalies, 80

death of one fetus, 81-82 maternal hypertension, 82-83

twin discordance, 80-81 vanishing twin, 79

antepartum, management, 55-69

amniocentesis, 62-63 Doppler ultrasound, 63

fetal lung maturation, 63 genetic, 62-63

bed rest, 60-61

cervical cerclage, 61

death of one fetus, 65

diagnosis, early, 55-56 clinical, 56-57

diet. 60

maternal complications, 63-65

polyhydramnios, 65

pregnancy-induced hypertension, 64-

preterm labor, 64

tocolysis, prophylactic, 61 ultrasonography, 57-59

diagnosis of twins, 57

fetal growth assessment, 58-59 zygosity determination, 57-58

visits and fetal surveillance, 61-62

delivery, anesthesia, 107-122 management of, 93-106

diagnosis, 8-10

fetal effects, 47-49

growth, 47-48 lung maturity, 48

umbilical cord measurement, 48-49

incidence, 1-3, 124-125

labor effects, 49-50

labor management, 87-91

labor, preterm, prevention and treatment of, 71-77

bedrest, prophylactic, 71-73

beta-sympathetic agents, 74 cervical cerclage, 73

delivery, and fetal lung maturation, 74-

progesterone therapy, 73

maternal effects of, 41-53

alimentary system, 44 carbohydrate metabolism, 44

coagulation, 43

dietary zinc, copper, and iron, 45

nutrition, 44-45

physical characteristics, 41-43

proteins and electrolytes in serum, 45-47

renal function, 43-44

respiratory function, 43 morbidity and mortality factors, 3-6, 123-

140

abnormal growth, 4

birth asphyxia, 128 congenital anomalies, 132-133

hyaline membrane disease, 128-130

incidence, 124-125 malformations, 3-4

neurologic morbidity, 131-132

prematurity/low birth weight rate/intrauterine growth retardation, 4-5, 126-

respiratory morbidity, 130-131

trauma at delivery, 5-6 neonatal problems, 141-158

congenital malformations, 147-150

Twin pregnancy (Continued) neonatal problems, embryology, zygosity, placentation, 141-142 group B streptococcal disease, 151 growth and development, 151-153 hyaline membrane disease, 150-151 necrotizing enterocolitis, 151 parenting, 153-154 perinatal mortality, 142 prematurity, low birth weight, intrauterine development, 142-144 retinopathy of prematurity, 151 twin transfusion syndrome, 144-147 placenta, 13-40 classification, 14-15 embryology of, 15-19 etiology, 19-20 pathology, 25-35 dichorionic-diamnionic fused, 32-35 dichorionic-diamnionic separate, 35 monochorionic, monoamnionic, with conjoined twins, 27-28 monochorionic-diamnionic, 28-32 zygosity, diagnosis of, 20-25 Twin transfusion syndrome, monochorionic-

Ultrasonography, diagnosis of twins, 57 energy effects on fetus, 561–562 fetal growth assessment, 58–59 zygosity determination, 57–58 Umbilical cord, in twin pregnancy, 48–49

diamnionic placenta, 30-32

and neonatal problems, 144-147

Vaginal delivery, of twin pregnancy, 113–116
Vanishing twin, 79
Varicella-zoster virus, fetal infection, 217–219
maternal infection, 215–217
maternofetal transmission, 217
neonatal infection, 219
prevention, 219–221
Vascular connections, in dichorionic placen-

tas, 34–35 in monochorionic-diamnionic placenta, 29–30 Vascoonstriction, and retinopathy of prema

Vasoconstriction, and retinopathy of prematurity, 921 Vasodilators, 479–483 Vegetations, echocardiography of, 553–555 Ventricles, right-to-left shunt, 540–545 septal de' cts, digoxin effects, 503 echocardiography, two-dimensional and Doppler, 529–532

Ventricular outflow obstruction, echocardiography of, 532–539 Ventricular rhythm with intermediate rate

(VRIR), 609-618

Ventriculomegaly, 947–950
Viral infections, after implantation, 167–173
cytomegalovirus, 168–170
other DNA viruses, 171
other herpesviruses, 170–171
other RNA viruses, 168
retroviruses (HIV), 171–173
rubella, 167–168
perinatal, 176–168
hepatitis B, 177–178
herpes simplex, 176–177

See also specific diseases.
Vitamin E therapy in high-risk neonates,

clinical problems, 957–959 absorption and hydrolysis of esters, 957–958 available products, 958–959 storage, transport, and elimination, 958

toxicity, 958 normal absorption and deficiency states,

955–957 supplementation, 956

prophylaxis for oxygen toxicity, 959–960 bronchopulmonary dysplasia, 959 retinopathy of prematurity, 959–960 periventricular/intraventricular hemorrhage, 960

working guidelines, 960-961 Volume overload, digoxin effects, 503-504

Water, excretion of, 448 during transition to extrauterine life, 864-866, 867

Zinc, maternal, in twin pregnancy, 45 Zygosity, and neonatal problems of twins, 141-142 placental, 20-25 ultrasonography, 57-58

